

EAST - [default.wsp:1]

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DRG: EAST

BRG: 10:1. The ratio of isocyanate groups in the polyisocyanate component to the number of isocyanate-reactive groups in the polyol component is 0.8:1-1.5:1.

IS&R: DETAILED DESCRIPTION - Production of rigid polyurethane foam involves mixing a polyisocyanate component with a polyol component in the presence of catalyst(s) for the reaction of a polyol or water with a polyisocyanate. The resulting mixture is subjected to predetermined conditions for curing to form a polyurethane foam having a bulk density of at most 45 lb/ft<sup>3</sup>. The polyisocyanate component contains an isocyanate-terminated prepolymer made by reacting an excess of an organic polyisocyanate with (i) polyol(s) and (ii) hydrogen-functional (meth)acrylate. The polyol component contains a blowing agent and isocyanate-reactive materials having an average functionality of at least 2.3 and includes at least one polyol. The volume ratio of the polyisocyanate component to polyol component is not more than 10:1. The ratio of isocyanate groups in the polyisocyanate component to the number of isocyanate-reactive groups in the polyol component is 0.8:1-1.5:1.

IS&R: USE - For producing polyurethane foam useful as reinforcement material in e.g., auto industry.

BRG: ADVANTAGE - The reaction proceeds rapidly when the components are mixed at ambient to moderately elevated temperatures, such as 20-70 deg. C (preferably 35-65 deg. C), thus simplifying the handling and application of foam. Because of the low volume ratios of the polyol and isocyanate components, a variety of commonly available mixing and dispensing equipment can be used.

IS&R: CHOSEN DRAWING: Dwg. 0/0

BRG: TITLE TERMS: PRODUCE RIGID POLYURETHANE FOAM USEFUL REINFORCED MATERIAL READY

BRG: 11: (5) ("3314301").FN.

BRG: 12: (11086) (hydroxyl adj. functional)

BRG: 13: (249426) acrylate

BRG: 14: (136138) polyol

BRG: 15: (2) 12 adj. 13 adj. 14

BRG: 16: (375) 12 same 13 same 14

BRG: 17: (317153) polyurethane

BRG: 18: (415180) foam

BRG: 19: (57) 16 and 17 and 18

U	I	Document ID	Issue Date	Pages	Title	Current OR	Current Ref Retrieval	Inventor	U	C	P	U
48	<input type="checkbox"/>	US 4931427 A	19900605	17	Chain extenders for polyurethanes	521/163	252/152.15/ 252/182.17;	Friester, Jr., Ralph D. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	<input type="checkbox"/>	US 4863975 A	19890905	14	Cyanurate additive for polyurethane foams	521/123	521/170; 521/174;	Knobel, Thomas M. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	<input type="checkbox"/>	US 4826883 A	19890502	11	Cyanurate additive for polyurethane foams	521/123	521/170; 521/174	Knobel, Thomas M. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51	<input type="checkbox"/>	US 4814355 A	19890321	13	Cyanurate additive for polyurethane foams	521/123	521/170; 521/174	Knobel, Thomas M. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52	<input type="checkbox"/>	US 4794127 A	19881227	12	Cyanurate additive for polyurethane foams	531/123	521/170; 521/174	Knobel, Thomas M. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53	<input type="checkbox"/>	US 4758603 A	19880719	11	Dithiocarbamate internal mold release agents	521/110	252/182.17; 264/328.1;	Carswell, Robert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54	<input type="checkbox"/>	US 4740577 A	19880426	19	Energy polymerizable polyurethane precursors	528/51	521/50.5; 522/174;	DeVoe, Robert J. et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55	<input type="checkbox"/>	US 4241131 A	19801223	5	Moldable polyurethane foam-backed fabrics	442/374	264/257; 264/321;	Bailey, Robert J.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56	<input type="checkbox"/>	WO 2079540 A1	20021010	25	RIGID POLYURETHANE FOAMS			EL-KHATIB, Ali et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57	<input type="checkbox"/>	WO 200279345 A	20021010	9	Production of rigid polyurethane foam useful as			BILLOTTO, F et al.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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